

## PATENT ABSTRACTS OF JAPAN

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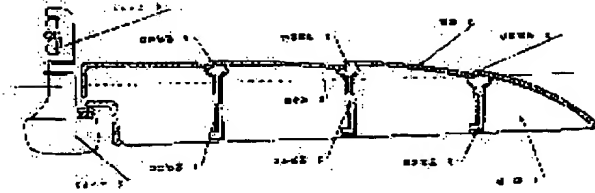
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(54) SHIP COVERING RESISTING SURFACE CONTACTING WATER OF ITS PROPELLED HULL WITH AIR LAYER AND REDUCING RESISTING SURFACE AREA CONTACTING WATER

(57)Abstract:

**PURPOSE:** To improve the propelling performance by generating a negative pressure at the stepped parts of the ship bottom by the speed difference between the ship bottom of the propelled ship and water contacting the bottom, sucking in air from air-conduit pipes by the negative pressure, thereby covering the ship bottom with air layers.

**CONSTITUTION:** The ship bottom 4 having stepped parts on the hull 1 is provided, and air-inlets 3 connected to air conduit pipes 2 are provided on the boundary lines of the stepped parts. When the ship is propelled and its speed reaches above a specified speed, the speed difference is produced between water contacting the ship bottom 4 and the ship bottom 4 to generate a negative pressure at the air outlets 3 based on atomizing principle. Air is sucked in through the air conduit pipes by the negative pressure and blown off from the ship bottom 4. The ship bottom 4 is thus continuously covered with air lays to reduce the resisting surface area contacting water, and thereby the propelling performance of the ship is improved.



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